

**REMARKS**

**I. Status of Claims**

Claims 1-20 and 22-45 are currently pending. By this amendment, claims 46-92 have been cancelled without prejudice and claims 1 and 43-45 have been amended.

Support for the amendments to claims 1 and 43-45 can be found in the originally-filed specification, for example on page 6, paragraph [016], stating that "the at least one hydroxide compound and the at least one oxidizing agent are present in a combined amount effective to relax the keratinous fibers." No new matter has been added.

Applicants would like to thank the Examiner for his withdrawal of the rejections under 35 U.S.C. § 102(b) and § 103(a) over German Patent DE 2014628 to Wella AG ("Wella"). Applicants would also like to thank the Examiner for the courtesies extended to Applicants' representatives during the June 15, 2004, telephone interview.

**II. Rejections under 35 U.S.C. § 103**

**A. Au**

The rejection of claims 1-4, 9-28, and 30-42 under 35 U.S.C. § 103 as allegedly obvious over U.S. Patent No. 5,872,111 to Au et al. ("Au") has been maintained for the reasons of record. Applicants note that claim 21 has been previously canceled, and thus address the rejection as it applies to claims 1-4, 9-20, 22-28, and 30-42, as amended.

According to the Examiner's previous remarks, Au teaches all of the elements of the present claims, except that "[t]he instant claims differ from the reference by reciting a composition comprising at least one hydroxide compound and at least one oxidizing

agent wherein the ingredients are presented in a combined amount." October 27, 2003, Office Action at 5. The Examiner attempts to cure this deficiency by arguing that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to make such a composition by combining the ingredients because the reference teaches compositions comprising all the claimed ingredients, and, thus, a person of [ ] ordinary skill in the art would expect such a composition to have similar properties to those claimed, absent unexpected results." *Id.* Applicants traverse this rejection, for at least the reason that Au does not teach or suggest a composition wherein at least one hydroxide compound and at least one oxidizing agent are present in a composition in a sufficient quantity to effect lanthionization of keratinous fibers, as claimed herein.

Applicants first point out that Au does not teach or suggest the claimed elements in a *composition for lanthionizing keratinous fibers*, as claimed in claims 1-20 and 22-45. Instead, Au is primarily directed towards the manufacture of glycosylamide surfactants and compositions comprising glycosylamide surfactants. While Au does briefly mention the possibility of hair straightening/relaxing compositions in a laundry list of possible hair care compositions, it distinguishes these compositions from shampoos, which are listed separately. See Au, col. 31, ll. 30-39. Yet the Examiner inconsistently relies on the reference's teachings of possible additives in *shampoos* for support that the reference teaches the elements of the claimed composition. The instant claims, however, are drawn towards a composition for lanthionizing keratinous fibers wherein at least one hydroxide compound and at least one oxidizing agent are present in the composition in a sufficient quantity to effect lanthionization of keratinous fibers. And Au is silent on a

composition for lanthionizing keratinous fibers comprising any of the claimed compounds.

Additionally, as Applicants discussed on the record in the January 27, 2004, Amendment, Au does not teach or suggest a composition for lanthionizing keratinous fibers comprising an oxidizing agent, such as hydrogen peroxide. Au's only mention of hydrogen peroxide concerns the manufacture of glycosylamide surfactants, for which, according to Au, "[b]leaching is sometimes required . . . ." Au, col. 29, ll. 58-60. These glycosylamides (that have optionally been bleached with hydrogen peroxide) may then be added to a composition, such as a shampoo composition. Accordingly, the hydrogen peroxide disclosed in Au is never incorporated into any composition. Applicants therefore believe the Examiner is mistaken in his assertion that Au "teaches a shampoo composition comprising . . . [the] oxidizing agent of hydrogen peroxide . . . ." April 13, 2004, Office Action at 3.

Moreover, because Au does not teach or suggest a composition comprising at least one oxidizing agent, the Examiner has failed to establish the requisite motivation to modify the reference so as to combine the at least one oxidizing agent (used for bleaching glycosylamides) into a composition for lanthionizing keratinous fibers, much less a composition wherein at least one hydroxide compound and at least one oxidizing agent are present in a composition in a sufficient quantity to effect lanthionization of keratinous fibers. Even assuming *arguendo* some trace amount of unreacted hydrogen peroxide from the glycosylamide bleaching ended up in a composition, this trace amount would be ineffective for lanthionizing keratinous fibers and thus outside the scope of the instant claims. See, for instance, Example 1 at page 20, Table 1, showing

that 1% of hydrogen peroxide combined with 0.01% to 0.5% sodium hydroxide caused no significant relaxation of the hair. Applicants therefore respectfully request the Examiner reconsider this grounds for rejection.

**B. Au in view of Pyles**

The rejection of claim 29 under 35 U.S.C. §103 as allegedly obvious over Au in view of U.S. Published Patent Application No. 2001/0008630 to Pyles et al. ("Pyles") has been maintained for the reasons of record. According to the Examiner, Au teaches "a composition comprising amino acids as a genus (see col. 10, l. 64)," while Pyles teaches "a hair treating composition comprising sodium glutamate as claimed in claim 29 (see page 4, paragraph 0091)." October 27, 2003, Office Action at 6. From this, the Examiner alleges that one of ordinary skill in the art would be motivated "to select any species of the genus taught by [the] reference . . . ." *Id.*

Pyles in no way cures the deficiencies discussed above in Au. Therefore, the Examiner has not established that the combination of Au in view of Pyles renders claim 29 obvious. Moreover, contrary to the Examiner's assertion, Au fails to disclose "amino acids as a genus." Instead, Au rather specifically discloses a select sub-genus of amino acids, namely "the *essential* amino acid compounds found natural in the skin." Au, col. 10, ll. 64-65. (Emphasis added). Glutamate, however, is a *non-essential* amino acid, and thus outside the scope of the Au reference. Thus, even assuming *arguendo* the Examiner is correct in stating that one of ordinary skill would have been motivated to select any species of the genus taught by the reference, the reference does not teach glutamate. Accordingly, the rejection should be withdrawn.

**C. Au in view of Wella**

The Examiner has now rejected claims 5-8 and 43-45 under 35 U.S.C. § 103 as allegedly obvious over Au in view of Wella. According to the Examiner Au “teaches a shampoo composition comprising sodium hydroxide . . . , [the] oxidizing agent of hydrogen peroxide . . . , and [the] complexing agent or sequestering agent that dissociate[s] hydroxide compounds . . . .” April 13, 2004, Office Action at 3. The Examiner admits that Au “is silent about the percentage amount of sodium hydroxide in the composition,” but alleges that Wella “teaches . . . a composition comprising 2.0% of sodium hydroxide . . . .” *Id.* From this the Examiner concludes that “one having ordinary skill in the art . . . [would] be motivated to modify the composition in Au et al., by optimizing the amounts of sodium hydroxide in order to get the maximum effective amount.” *Id.*

Wella does not cure the deficiencies in Au discussed above. Therefore, the Examiner has not established that the combination of Au in view of Wella renders claims 5-8 and 43-45, as amended, obvious, and Applicants respectfully request the Examiner reconsider this ground for rejection.

**III. Conclusion**

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-20 and 22-45, as amended, in condition for allowance. Applicants submit that the proposed amendments of claims 1 and 43-45 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either

earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented a new rejection and some new arguments as to the application of the art against Applicant's invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance.

Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.


In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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